# Final Report

# *Economic Impact Statement* for the Saskatchewan Film and Video Industry

**Prepared for:**

**Saskatchewan Industry and Resources,**

In Partnership with

**Saskatchewan Culture, Youth and Recreation**

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# FETC Economic Impact Study

## Objectives

Determine the **Economic Impacts** of the Film Industry in Saskatchewan including:

- Direct and indirect expenditure impacts
- Direct and indirect employment impacts
- A year-by-year analysis of both

**Undertake a Cost Benefit Analysis of the Saskatchewan Government's Investment** in the Film Industry through the Film Employment Tax Credit (FETC) Program including:

- A year-by-year and summary review of FETC investment
- A year-by-year and summary review of the tax impacts of Saskatchewan's film industry
- Cost benefit analysis of Government investment

**Provide Other Industry Performance Data where Applicable**

## Executive Summary

- **The Net Return to Government, regarding the FETC Program, is largely Neutral** – On an average annual basis the level of economic activity stimulated by FETC funded productions generated slightly less tax revenue than the FETC Program paid out. Over the six years the FETC has been operating the Program has paid out $31.63 million in employment credits. Economic activity stimulated by the industry generated $28.86 million in provincial tax revenues, based on the tax model used in this report. The net cost to government over the six years the FETC Program has been running is $2.77 million or an average of $0.46 million annually.

- **The Conclusions of this report do not consider forgone Alternatives for Investment** – The conclusions of this report consider only the net impacts of the Government's investment in the film industry. The report does not consider the relative impacts of investing money into other industries, providing lower taxes, or providing greater public services.

- **The Film Industry is Becoming More Skilled at Accessing the FETC –** In general, the FETC funding has been increasing as a percentage of the total production volume. This would indicate that, increasingly, producers are making more efficient use of the FETC Program as FETC funding becomes a larger portion of the total production expenditure.

- **The cost to government for creating employment through the FETC Program is high –** On an average year, for each direct and indirect full-time equivalent position created, the government has invested $8,095.00. If only direct film industry positions are considered, the cost is even higher at $15,873.00 for every direct position created through the FETC Program. In total, government contributions through the FETC Program constitute 23.1% of the direct and indirect wages triggered by the Program.

- **Two General Patterns Emerge from FETC Data –** The first trend would indicate that the higher the production volume, the lower the relative economic impact. The largest returns appear to be during the slowest production years.

  Because Saskatchewan expenditures have a more significant impact on the Saskatchewan economy, there is a corresponding higher tax impact for years in which there is less leakage from the Saskatchewan economy. In years that the industry has been operating in excess of full capacity, the leakage increases because of the need to import labour, and goods and services. Consequently, years in which the industry is running under capacity the relative economic impact of activities is higher. This, coupled with lower FETC contributions due to lower film production, increases the net return to Government.

  The second trend emerging is that the FETC is growing as a percentage of total production volume. This is not to say that larger production volumes do not have an increased benefit to the economy, only that the returns on industry growth diminish because of the limited production capacity of the Saskatchewan industry.

  If industry growth projections hold true the core production capacity will grow as well. Growth of Saskatchewan's production capacity will lead to Saskatchewan capturing a higher percentage of the economic impacts of production activity in Saskatchewan.

# 1.0 Film Production in Saskatchewan

## 1.1 – Size of the Industry

Regarding an analysis of film production volumes in Saskatchewan, there is a comprehensive data set available for the productions applying for the Film Employment Tax Credit (FETC) Program. The FETC Program requires detailed reporting on expenditures. The reporting includes information on employment, Saskatchewan labour content and total Saskatchewan expenditures.

FETC funded productions comprise approximately 80% of the total production expenditures in Saskatchewan. For the purposes of this report, only FETC funded productions are included in the economic and employment impacts. The following table shows the production volume for FETC funded productions in Saskatchewan.

**Table 1 – Saskatchewan FETC Funded Production Volume ($ millions)**

| Fiscal | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04[1] | Average |
|---|---|---|---|---|---|---|---|
| FETC Production Volume[2] | $ 52.16 | $ 17.13 | $ 48.61 | $ 24.54 | $ 42.84 | $ 39.92 | $ 37.53 |

As stated previously, FETC productions comprise approximately 80% all film productions in Saskatchewan. Table 2 shows the estimated value of all Saskatchewan film production.

**Table 2 – Total Saskatchewan Production Volume ($ millions)**

| Fiscal | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04[3] | Average |
|---|---|---|---|---|---|---|---|
| FETC Production Volume[4] | $ 52.16 | $ 17.13 | $ 48.61 | $ 24.54 | $ 42.84 | $ 39.92 | $ 37.53 |
| Non-FETC Production Volume | $ 8.0 | $ 8.0 | $ 8.0 | $ 8.0 | $ 8.0 | $ 8.0 | $ 8.0 |
| Total Production Volume | $ 60.16 | $ 25.13 | $ 56.61 | $ 32.54 | $ 50.84 | $ 47.92 | $ 45.53 |

[1] The production volume for this year has not been fully tabulated.

[2] Production volumes in this table are recorded in the year they submitted to the FETC, not necessarily as the productions occurred.

[3] The production volume for this year has not been fully tabulated.

[4] Production volumes in this table are recorded in the year they submitted to the FETC, not necessarily as the productions occurred.

Non-FETC funded productions include SCN, art, and commercial productions. These types of production are the core of the film industry and have very little fluctuation on a year-to-year basis. $8 million[5] in annual expenditures is a conservative estimate of the annual expenditures for non-FETC funded productions.

### Projected Growth

Prior to 1990, and the introduction of provincial film incentives, Saskatchewan's annual film production volume was approximately $5 million. However, throughout the nineties, production volumes began to grow increasingly. The rate of growth culminated in 1998 with the industry seeing a 100% increase in production over the previous year. The unprecedented growth recorded in 1998 coincided with the introduction of the FETC.

While the production volumes fluctuate from year to year, incremental growth within the industry is projected at $5.0 million annually for the foreseeable future.

## 1.2 – FETC Impact on Production

To assess the economic impact of the FETC, the level of production that can be attributed to the FETC must be determined. Previous to the introduction of the FETC, the industry projected that Saskatchewan's film production would likely level off without significant growth potential.

Film production can be highly mobile. With the majority of jurisdictions in Canada offering some form of film employment tax credit, Saskatchewan would become very uncompetitive without a tax credit program. The lack of a tax credit program would severely hinder Saskatchewan's ability to attract productions.

Without major productions to support the critical mass of production capacity, Saskatchewan's film crew base would shrink, further eroding the industry's production capacity. At a minimum, Saskatchewan would lose the film productions that currently receive funding under the FETC program. For the purposes of this economic impact statement, only FETC-funded productions in Saskatchewan are to be attributed to the impact of the FETC program.

It could be argued that FETC productions have created the critical mass within the industry to give Saskatchewan the capability to host increased productions outside of the FETC. However, to maintain a conservative approach only FETC-funded productions will be used when considering the total impact of the FETC Program.

[5] This includes $3.5 million in SCN productions, $0.5 in art production, and $4.0 million in marketing production.

# 2.0 Economic Impacts

## 2.1 – Methodology

After reviewing similar studies from throughout Western Canada it has been observed that there is very little consistency in the treatment of the economic impact of film production. This is in part due to the evolving methodology behind the analysis of economic impacts, as well as the varying sources of economic data and methodologies.

The methodology utilized here focuses on the direct and indirect impacts of activity in the film industry. While some economic impact methodologies include a third impact, an induced impact, the methodology used in this report does not include the induced impact.

While it is clear that economic activity has a direct, indirect, and induced impact on the economy as a whole, many economists are now looking to more closely assign economic impacts to the sector in which the impact began. In fact, Statistics Canada stopped including induced impacts in their analysis in 1997. By not including the induced impact of the film industry, the analysis reduces double counting and has a higher degree of confidence.

### Industry Specific Regional Multipliers – Employment Expenditure Multiplier

Statistics Canada maintains standard multipliers for specific industries at a national level. The Culture Statistics Program of Statistics Canada has calculated the employment multiplier for the Motion Picture and Video Production, Distribution, and Post Production at 2.24 at a national level.

To develop a multiplier specifically for motion picture production further analysis was completed by the Culture Statistics Program to remove distribution from this sector. Distribution has a very low multiplier impact. After the removal of the distribution component from this sector the national employment multiplier increased to 3.0.

Inter-provincial Input/Output Tables[6] for Motion Picture and Video Production, Distribution, and Post Production were utilized to develop a regional multiplier for the Saskatchewan film production industry. Due to the size of Saskatchewan's film industry, some Statistics Canada data was suppressed. The national employment multiplier (3.0) developed by Statistics Canada was used as a starting point. The input output tables for Saskatchewan's film industry were utilized to work backwards from the national multiplier to arrive at a multiplier for Saskatchewan. Saskatchewan's data was also cross-referenced with similar Statistics Canada data developed for other comparable jurisdictions. A multiplier of 1.96 has been established for a film production employment multiplier in Saskatchewan.

[6] Produced by Statistics Canada based on 2000 data.

### Other Multipliers

The film industry in Saskatchewan has traditionally utilized a general employment multiplier of 19 jobs per $1 million of economic activity. This multiplier is somewhat simplistic and misleading for three reasons. First, it is a national multiplier, and is not specifically applicable to Saskatchewan. While $1 million in cultural industry activity may create 19 jobs nationally, it is likely that 6 of these jobs would be leaked to other jurisdictions. This would mean that only 13 of those jobs would remain in Saskatchewan.

Second, cultural industries, in general, have a far lower multiplier than the film production industry. Utilizing multipliers for the entire cultural industry would likely lead to underestimating impacts.

Lastly, the employment multiplier should only be applied to Saskatchewan expenditures when calculating the employment impact for Saskatchewan. To include expenditures made outside of Saskatchewan would artificially inflate the employment impact.

Wherever possible, employment impacts should be calculated on the direct employment expenditure. Utilizing the total economic activity to determine the labour impact would be considered a generalization, but still useful if no other means are available.

## Industry Specific Regional Multipliers – Operational Expenditure Multiplier

Regarding the operational expenditure multiplier, the inter-provincial input output tables[7] provide a gross output multiplier of 1.31 for Motion Picture and Video Production, Distribution, and Post Production in Saskatchewan. This was used as a proxy for the operational expenditure multiplier.

### Data Sources

The Film Employment Tax Credit Program requires applicants to submit data on expenditures as well as the expenditures made within Saskatchewan and the level of Saskatchewan content in the labour expenditure. This detailed data source provides an excellent measure of the level of expenditure leakage from Saskatchewan.

### Saskatchewan Tax Impacts

Provincial employment tax impacts were calculated by first determining the total tax based revenue for the Saskatchewan Government. The total employment tax impact was determined to be a function of the total employment created by Saskatchewan's film industry.

[7] Produced by Statistics Canada based on 2009 data.

The Saskatchewan film industry's employment expenditure impacts were taken as a percentage of the total employment wages expenditure in Saskatchewan. It was assumed that the total Saskatchewan employment expenditure was a proxy for the tax base in Saskatchewan. The Saskatchewan film production employment expenditure impact (expressed as a percentage of the total wages earned in Saskatchewan) was then applied to the total of all applicable taxes collected in Saskatchewan. This formula determined the total tax revenue generated by the employment stimulated by the Saskatchewan film industry[8].

For expenditure impacts, it was determined that Provincial Sales Tax would apply to the vast majority of purchases made through the operational expenditure. The rates at which sales taxes have been applied in Saskatchewan have varied between 6% and 7%. The sales tax in Saskatchewan was 6% for the years from 1999-2004. Based on the sales tax rate for the years 1999-2004 the effective average tax rate on operational expenditures is 5.5%.

In 1998-99 the provincial sales tax was 7%. For this period the effective tax rate is 6.5%.

## 2.2 – Direct Labour Expenditure

The following table shows the generation of the direct labour expenditure within Saskatchewan. Expenditures must be broken down into operational and labour expenditures because of the different impacts these expenditures have on the economy. Based on FETC data, on average, the labour component comprises 55.36% of the total Saskatchewan production volume with operational expenditures comprising the other 44.65%.

While the average annual production volume in Saskatchewan is $37.53 million, the economic impact is determined from the level of expenditure made within Saskatchewan. FETC data indicates that since the beginning of the FETC Program, on average, 55.99% of the labour expenditure was spent on Saskatchewan labour. Since the FETC Program was implemented, the annual expenditure on Saskatchewan labour has been $11.63 million.

[8] The actual labour tax impact may vary dependent upon how closely the employment triggered by Saskatchewan's film industry matches the characteristics of Saskatchewan's entire labour force.

| Table 3 – Direct FETC Production Labour Expenditures ($ Millions) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fiscal** | **1998-99** | **1999-00** | **2000-01** | **2001-02** | **2002-03** | **2003-04[9]** | **Average** |
| Total Production Volume | $52.16 | $17.13 | $48.61 | $24.54 | $42.84 | $39.92 | $37.53 |
| Labour Ratio | 46.55% | 49.33% | 61.47% | 61.37% | 59.38% | 53.98% | 55.35% |
| Labour Expenditure | $24.28 | $8.45 | $29.88 | $15.06 | $25.44 | $21.55 | $20.78 |
| Retained Expenditure | 49.22% | 79.76% | 50.84% | 65.74% | 53.30% | 57.82% | 55.99% |
| Sask. Labour Expenditure | $11.95 | $6.74 | $15.19 | $9.90 | $13.56 | $12.46 | $11.63 |
| Direct Employment (FTE)[10] | 341 | 193 | 434 | 283 | 387 | 356 | 332 |

**Relationship of Percentage of Saskatchewan Labour to Production Volume**

In general, the Saskatchewan labour content tends to be higher in years in which the production is slow. In years the production volume is high, the Saskatchewan labour content is fully deployed, requiring the industry to import labour reducing the overall Saskatchewan labour content. When production is slow there is less importation of labour and more Saskatchewan labour is used as a percentage of total expenditures.

In 1998-99 the film industry went through a significant expansion that pressed all experienced film workers into service. The shortage of skilled film labour in Saskatchewan forced the industry to import a higher percentage of workers.

While 1998-99 put a great demand on Saskatchewan's supply of experienced film labour, 1999-2000's production dropped off sharply. Because the demand for labour was reduced, there was less of a need to import labour from other jurisdictions. This led to the percentage of direct Saskatchewan labour growing significantly from 49.21% to 79.82%. This pattern is consistent through the six years of the FETC.

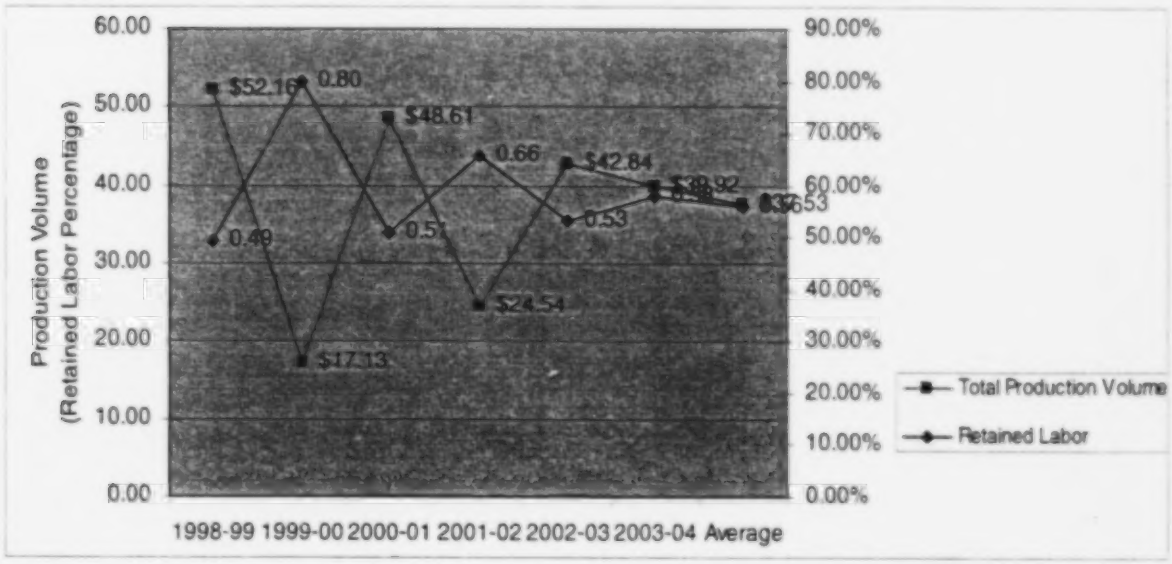
The following graph shows the relationship between the total Saskatchewan labour content and the production level.

[9] The production volume for this year has not been fully tabulated.

[10] Based on an average annual full-time equivalent salary of $35,000. (Source: Statistics Canada, Community Profiles – average full time salary in Saskatchewan.)

**Graph 1**

**Total Production Volume versus Saskatchewan Labour Content**




**Expansion of the Saskatchewan Film Labour Base**

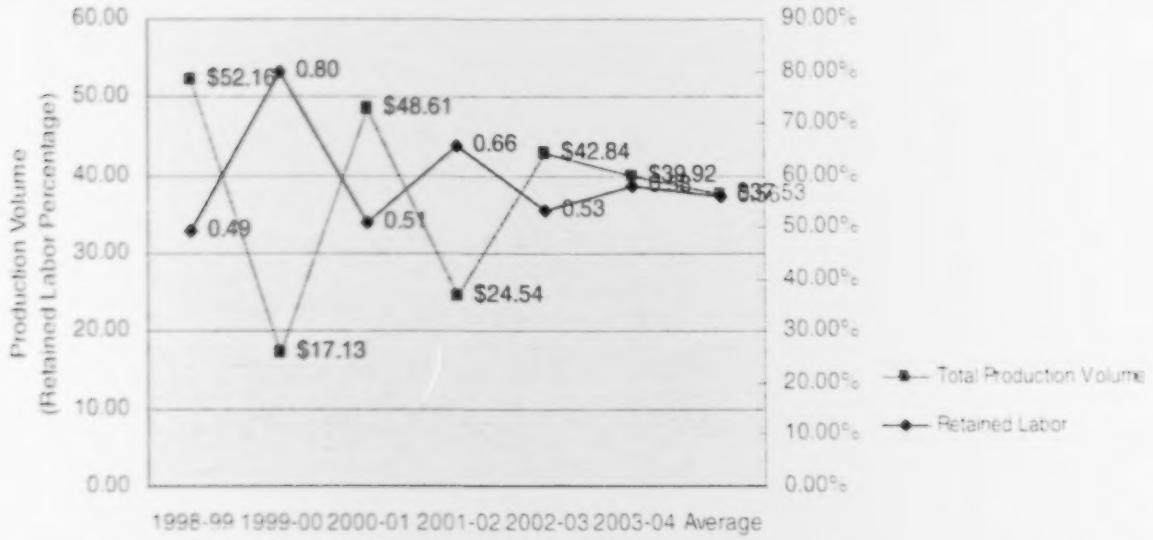
The FETC increased the demand for an experienced film crew in Saskatchewan. This demand has translated into growth of the film crew. In the first year of the FETC in Saskatchewan, the maximum number of Saskatchewan full-time equivalent positions that were created was 341 (1998-99). Two years later, with the Saskatchewan labour content reaching capacity again, the Saskatchewan film content had grown by 27% to 434 (2000-01).

As Saskatchewan's film crew capacity grows, the level of labour that must be imported to support high production years will decrease. A decrease in the level of imported labour reduces the level of leakage, increasing the overall economic impact for the province.

While growth of the production labour capacity has leveled off, continued demand for more labour will likely lead to further growth of Saskatchewan's production labour capacity. The 2003-04 year has not been fully tabulated, but the year is projected to generate 419 positions, or nearly as many positions as in 2000-01. This demonstrates that early growth of Saskatchewan's labour production capacity has been sustained.

**Graph 1**

**Total Production Volume versus Saskatchewan Labour Content**

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## 2.3 – Direct Operational Expenditure

The following table shows the operational expenditure resulting from annual film production. This is the non-labour component of film production. The operational expenditure represents goods and services consumed during film production such as car rentals, equipment rentals, and other production services. Overall, 70.78% of film production operational expenditures are made in Saskatchewan.

| Table 4 – Direct FETC Production Operational Expenditure ($ Millions) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fiscal** | **1998-99** | **1999-00** | **2000-01** | **2001-02** | **2002-03** | **2003-04**[11] | **Average** |
| Total Production Volume | $52.16 | $17.13 | $48.61 | $24.54 | $42.84 | $39.92 | $37.53 |
| Operational Ratio | 53.46% | 50.70% | 38.53% | 38.63% | 40.62% | 46.01% | 44.65% |
| Operational Expenditure | $27.88 | $8.68 | $18.73 | $9.48 | $17.40 | $18.37 | $16.76 |
| Retained Expenditure | 56.16% | 65.31% | 98.62% | 77.96% | 80.00% | 54.97% | 70.78% |
| Sask. Operational Expenditure | $15.66 | $5.67 | $18.47 | $7.39 | $13.92 | $10.10 | $11.87 |

The percentage of operational expenditures that are leaked out of Saskatchewan on an annual basis varies greatly. While the overall leakage of operational expenditures is far less than that of labour expenditures, there is no discernable pattern regarding the reduction of the leakage of operational expenditures. As the Saskatchewan film industry grows, the levels of operational expenditure leakages should level off.

[11] The production volume for this year has not been fully tabulated.

## 2.4 – Employment Expenditure Impact

The following table shows the total impact of film production labour expenditures in Saskatchewan.

| Table 5 – Impact of FETC Production Labour Expenditures ($ Millions) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fiscal** | **1998-99** | **1999-00** | **2000-01** | **2001-02** | **2002-03** | **2003-04[12]** | **Average** |
| Total Production Volume | $52.16 | $17.13 | $48.61 | $24.54 | $42.84 | $39.92 | $37.53 |
| Labour Expenditure | $24.28 | $8.45 | $29.88 | $15.06 | $25.44 | $21.55 | $20.78 |
| Labour Ratio | 46.55% | 49.33% | 61.47% | 61.37% | 59.38% | 53.98% | 55.36% |
| Retained Labour Expenditure | 49.22% | 79.76% | 50.84% | 65.74% | 53.30% | 57.82% | 55.99% |
| Saskatchewan Labour Expenditure | $11.95 | $6.74 | $15.19 | $9.90 | $13.56 | $12.46 | $11.63 |
| Direct Employment (FTE) | 341 | 193 | 434 | 283 | 387 | 356 | 332 |
| Multiplier[13] | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 |
| Total Impact of Employment Expenditures | $23.40 | $13.21 | $29.77 | $19.40 | $26.56 | $24.41 | $22.79 |
| Saskatchewan Employment | 669 | 377 | 851 | 554 | 759 | 697 | 651 |

With multipliers developed from Statistics Canada's economic impact modeling, the direct labour expenditure can be translated into the complete economic impact on the Saskatchewan economy. Compared to the operational multiplier (1.31), the labour multiplier is much higher at 1.96. Clearly, film productions with a higher labour content have a greater impact on Saskatchewan's economy.

Saskatchewan's film production industry creates 332 direct jobs in Saskatchewan as well as another 319 indirect jobs for a total employment impact of 651. The direct jobs are created through direct employment by the production companies.

Indirect jobs are created in industries that directly and indirectly support the production of films in Saskatchewan. The additional demand that the film industry places on the Saskatchewan economy leads to increased economic activity, and subsequently, increased employment. Indirect jobs would be generated through subcontracting by production companies; increased demand on hotels, restaurants, and car rentals; and increased economic activity in other sectors.

[12] The production volume for this year has not been fully tabulated.

[13] Based on Statistics Canada Input/Output Tables 2000, Economic Impact of Motion Picture and Video Production, Distribution, and Post Production.

## Employment Leakage

Table 6 demonstrates that, on average, the direct labour expenditure of $11.63 million results in a total employment impact of $22.79 million. The labour multiplier used here is specific to Saskatchewan. This multiplier factors in the percentage of labour generated that will go out of province. The following table shows how this impact would vary for select provinces based on one hundred direct jobs.

**Table 6 – Comparative Employment Multipliers**

| Province | Direct Employment | Regional Multiplier[14] | Total Provincial Employment |
|---|---|---|---|
| Saskatchewan | 100 | 1.96 | 196 |
| Manitoba | 100 | 2.10 | 210 |
| Quebec | 100 | 2.63 | 263 |
| Ontario | 100 | 2.79 | 279 |
| Canada | 100 | 3.0 | 300 |

Saskatchewan's production capacity is not as well developed as the other jurisdictions in the table, and accordingly, a higher percentage of the employment created is leaked to other regions. As Saskatchewan's film production capacity increases, the employment leakage will decrease. Reduced employment leakage translates into a greater labour multiplier for Saskatchewan.

At a national level, each direct film position creates two indirect positions elsewhere in the economy. In Saskatchewan, each direct job has a total impact of 1.96 jobs, or approximately one indirect job for every direct job. According to the national multiplier, this indicates that for every one job created in Saskatchewan there is one indirect job created in Saskatchewan and one indirect job created outside of Saskatchewan.

[14] Derived from Saskatchewan Input/Output Tables generated by Statistics Canada as well as multipliers generated by the Cultural Statistics Program of Statistics Canada.

## 2.5 – Operational Expenditure Impact

The following table outlines the impacts film production operational expenditure has on the provincial economy.

| Table 7 – FETC Production Operational Expenditure Impacts ($ Millions) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fiscal** | **1998-99** | **1999-00** | **2000-01** | **2001-02** | **2002-03** | **2003-04[15]** | **Average** |
| Operational Expenditure | $27.88 | $8.68 | $18.73 | $9.48 | $17.40 | $18.37 | $16.76 |
| Sask. Operational Expenditure | $15.66 | $5.67 | $18.47 | $7.39 | $13.92 | $10.10 | $11.87 |
| Multiplier | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 |
| Total Impact of Operational Expenditures | $20.51 | $7.43 | $24.19 | $9.69 | $18.23 | $13.23 | $15.55 |

On average, the operational expenditure has much less of an impact on the economy than the employment impact. The following graph compares the expenditures for labour and operations with their respective impacts.

| Table 8 – Economic Impact Comparison ($ Millions) | | | | |
|---|---|---|---|---|
| | **Initial Expenditure** | **Saskatchewan Expenditure** | **Multiplier** | **Total Impact** |
| **FETC Labour** | **$20.78** | **$11.63** | **1.96** | **$22.79** |
| **FETC Operations** | **$16.76** | **$11.87** | **1.31** | **$15.55** |

Operational expenditures account for 40.18% of the total economic impact despite accounting for 50% of the total Saskatchewan expenditure. This is a factor of the different multipliers used to calculate the economic impact. The economic impacts vary because of the greater economic impact of employment expenditures.

[15] The production volume for this year has not been fully tabulated.

## 2.6 – Total Economic Impact

On average, the average annual economic impact of film production in Saskatchewan has been $38.34 million since the introduction of the FETC Program. The total average annual employment generated was 651 full-time equivalent positions.

**Table 9 – Total Economic Impacts of FETC Film Production in Saskatchewan ($ Millions)**

| Fiscal | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04[16] | Average |
|---|---|---|---|---|---|---|---|
| Total Production Volume | $52.16 | $17.13 | $48.61 | $24.54 | $42.84 | $39.92 | $37.53 |
| Total Economic Impact | $43.91 | $20.64 | $53.96 | $29.09 | $44.79 | $37.64 | $38.34 |
| Economic Impact as a Percentage of Production | 84% | 120% | 111% | 119% | 105% | 94% | 102% |
| Saskatchewan Employment | 669 | 377 | 851 | 554 | 759 | 697 | 651 |

In specific years, the level of production volume is conversely related to the rate of economic impact. For instance, in 1998-99 the total production volume was $52.16 million, however, the economic impact, as a percentage of the total production volume, was only 84% of the total expenditure at $43.91 million. In years when production was down the economic impact was far greater as a relative function of the initial expenditure. In 2001-02 the total production volume was estimated at $24.54 million with an economic impact of $29.09 million, 120% of the total production volume.

The relationship between the economic impact and total production volume is likely caused by the level of imports that occur during strong film production years. When the film industry is running at capacity, the industry is forced to import labour and, to some extent, goods and services from other jurisdictions. The higher levels of leakage dilute the economic impact for Saskatchewan.

It should be noted that 2003-04 was a strong production year with the final production volume projected to reach $47 million. As such, 2003-04 maintains the pattern of higher production years leading to a reduced return in terms of economic impact.

While the relative economic impact may be lower during specific high production years, clearly there are still greater economic impacts associated with increased production volume. As well, the heightened demand for film related labour, goods, and services during peak production years should result in expansion of these sectors in Saskatchewan resulting in lower leakages in the future.

[16] The production volume for this year has not been fully tabulated.

# 3.0 Provincial Taxation Impacts

On average, the film industry in Saskatchewan has produced $4.81 million annually in tax revenue for the provincial government since the implementation of the FETC Program. The total tax revenue over the 6 years has been $28.86[17] million.

**Table 10 – Tax Impact of FETC Film Production in Saskatchewan ($ Millions)**

| Fiscal | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04[18] | Average |
|---|---|---|---|---|---|---|---|
| Total Production Volume | $52.16 | $17.13 | $48.61 | $24.54 | $42.84 | $39.92 | $37.53 |
| Total Impact of Employment Expenditures | $23.40 | $13.21 | $29.77 | $19.40 | $26.56 | $24.41 | $22.79 |
| Labour Tax Impact | $4.03 | $2.27 | $5.12 | $3.34 | $4.57 | $4.20 | $3.92 |
| Total Impact of Operational Expenditures | $20.51 | $7.43 | $24.19 | $9.69 | $18.23 | $13.23 | $15.55 |
| Operational Tax Impact | $1.33 | $0.41 | $1.33 | $0.53 | $1.00 | $0.73 | $0.89 |
| Total Economic Impact | $43.91 | $20.64 | $53.96 | $29.09 | $44.79 | $37.64 | $38.34 |
| Total Tax Impact | $5.36 | $2.68 | $6.45 | $3.87 | $5.57 | $4.93 | $4.81 |

## 3.1 – Labour Tax Impact

The tax impacts have been separated into employment expenditure impacts and operational expenditure impacts. As explained in the methodology section, the total labour tax impact has been calculated based on the total tax revenue for the province.

In the 2000-01 tax-year, the Government of Saskatchewan collected $2.53 billion in applicable[19] taxes as defined in the following table. As a percentage of the total wages earned in Saskatchewan the $22.79 million in employment income expenditures is the equivalent of 0.161% of the total wages earned in Saskatchewan and as such represents 0.161% of the total tax base.

[17] The total tax impact does not consider the implications of the federal equalization system.

[18] The production volume for this year has not been fully tabulated.

[19] Corporate and capital taxes were not included.

| Table 11 – Tax Impacts of FETC Production Labour Expenditure (Average Expenditure) ($ Millions) | | | |
|---|---|---|---|
| | **Total Revenue** | **Total Employment Impact as a Fraction of Provincial Wages** | **Total Tax Impact** |
| Personal Income Tax | $ 1,247.0 | .00161 | $ 2.01 |
| Retail Sales Tax | $ 815.2 | .00161 | $ 1.31 |
| Gasoline Tax | $ 246.8[20] | .00161 | $ 0.40 |
| Tobacco Tax | $ 124.6 | .00161 | $ 0.20 |
| Total | $ 2,433.6 | .00161 | $ 3.92 |

Clearly, personal income tax is the single largest source of revenue for the Government. The employment expenditure will also trigger a significant amount of retail, gasoline, and tobacco taxes.

## 3.2 – Operational Expenditure Tax Impact

The total operational expenditure impact of $15.55 million will stimulate a significant amount of sales taxes, particularly the Provincial Sales Tax (PST). A conservative estimate on the returns to Government for the years 1999-2004 operational expenditures would be 5.5%. While the effective tax rate is based primarily on the PST, the operational expenditure would also trigger gasoline and tobacco sales tax revenues.

For the 1998-99 year the provincial sales tax was one percent higher at 7%, during this year the effective tax rate on the operational expenditure would be 6.5%. On average the annual total provincial taxes generated by the operational expenditures has been $.89 million.

[20] Reduced from $347.6 million to $246.8 to reflect only purchases made by consumers, not corporations.

# 4.0 Relative Impacts of Saskatchewan's Film Industry

## 4.1 – Employment Impacts of Saskatchewan's Film Industry

The employment impacts of film production are high, relative to other industries. This is true even when the employment impacts are compared to other cultural industries.

Most cultural industries include a distribution component. Because the distribution component has a low economic impact, sectors including a significant distribution component have a lower employment and economic impact. Within the film industry film production is entirely separate from distribution. Film production, isolated from distribution, has a much higher impact than would be the case if distribution and production were combined.

Sectors such as radio, theatre, and performing arts have distribution components that are inseparable from production.

The following table shows a multiplier comparison generated by Statistics Canada in 1996. With the exception of film, there has been virtually no change in the multipliers since.

**Table 12 – Employment Multiplier Comparison[21]**

| | Direct Jobs per $1 Million in Direct GDP[22] | Employment Multiplier | Direct and Indirect Jobs per $1 Million in Direct GDP |
|---|---|---|---|
| **Film (Production and Distribution)** | **35.416** | **2.240** | **79.331** |
| **Broadcasting** | **15.579** | **1.480** | **23.055** |
| **Libraries** | **31.338** | **1.401** | **43.910** |
| **Heritage** | **34.938** | **1.400** | **48.902** |
| **Visual Arts** | **52.937** | **1.160** | **61.421** |
| **Photography** | **57.581** | **1.158** | **66.694** |

[21] Statistics Canada, Focus on Culture. (1996). Multipliers utilized in this table were generated in 1994. There have been no significant changes in these multipliers since that time with the exception of the film industry. Recent work has been done to update the film industry, restating the employment multiplier at 2.24.

[22] Gross Domestic Product is the measure of the value of the total outputs of an industry less the total inputs.

Compared to other sectors outside the cultural sector, film production still has a comparatively high employment impact. The following table shows the employment multiplier for selected industries.

| Table 13 – Employment Multiplier Comparison[23] | | | |
|---|---|---|---|
| | **Direct Jobs per $1 Million in Direct GDP[24]** | **Employment Multiplier** | **Direct and indirect Jobs per $1 Million in Direct GDP** |
| **Film (Production and Distribution )** | **35.416** | **2.240** | **79.331** |
| **Adverti ıng** | **43.735** | **1.550** | **67.809** |
| **Manufacturing** | **19.056** | **1.398** | **26.645** |
| **Government** | **17.016** | **1.314** | **22.364** |
| **Wholesale** | **8.248** | **1.308** | **10.784** |
| **Architecture** | **31.558** | **1.199** | **37.845** |
| **Retail** | **41.603** | **1.160** | **48.258** |

Table 14 shows the employment impacts generated by the film production industry, relative to other industries. Based on the nature of film productions they are heavily reliant on other supporting industries such as transportation, manufacturing, and business services triggering increased employment and economic impacts.

## 4.2 – Government Investment relative to Employment

The cost to government for creating employment through the FETC Program is high. On an average year, for each direct and indirect full time equivalent position created, the government has invested $8,095.00. If only direct film industry positions are considered, the cost is even higher at $15,873.00 for every direct position created through the FETC Program. The following table shows the government costs relative to the employment created.

[23] Statistics Canada, Focus on Culture. (1996). Multipliers utilized in this table were generated in 1994. There have been no significant changes in these multipliers since that time with the exception of the film industry. Recent work has been done to update the film industry, restating the employment multiplier at 2.24.

[24] Gross Domestic Product is the measure of the value of the total outputs of an industry less the total inputs.

| Table 14 – Relative Cost of Employment creation | |
|---|---|
| **FTE Direct and Indirect Employment Created** (average) | **651** |
| **Annual FETC Funding** (average) | **$5.27 Million** |
| **Cost Per Full Time Job**[25] (average) | **$8,095.00** |
| **Average Annual Employment Expenditure** (Government Investment) | **$22.79 Million (23.1%)** |

The FETC average annual contribution of $5.27 million accounts for 23.1% of the $22.79 million in combined direct and indirect labor expenditure triggered by the FETC Program. If only the direct employment expenditure is considered, the FETC program accounts for 45.3% of the total $11.63 million in direct wages.

[25] Average Annual Wage – $35,000.

# 5.0 Conclusions – Annual Net Impacts

Over the six years the FETC has been in place the Program has paid out $31.63 million in employment credits. Economic activity stimulated by the industry generated $28.86 million in provincial tax revenues. The net cost to government over the six years of the FETC Program has been $2.77 million or an average cost of $0.46 million annually.

In general, the FETC funding has been increasing as a percentage of the total production volume. This would indicate that increasingly, producers are making more efficient use of the FETC. The following table outlines a year-to-year cost benefit analysis for the FETC Program.

**Table 15 – Net Impacts of FETC for the Saskatchewan Government ($ Millions)**

| Fiscal | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04[26] | Average |
|---|---|---|---|---|---|---|---|
| Total Production Volume | $52.16 | $17.13 | $48.61 | $24.54 | $42.84 | $39.92 | $37.53 |
| Total Economic Impact[27] | $43.91 | $20.64 | $53.96 | $29.09 | $44.79 | $37.64 | $38.34 |
| Total Tax Impact | $5.36 | $2.68 | $6.45 | $3.87 | $5.57 | $4.93 | $4.81 |
| FETC | $5.82 | $2.41 | $6.74 | $3.44 | $6.67 | $6.55 | $5.27 |
| FETC as a % of Total Production | 11.16% | 14.07% | 13.87% | 14.02% | 15.57% | 16.41% | 14.04% |
| Cost Benefit to Government (negative) | ($0.46) | $0.27 | ($0.29) | $0.43 | ($1.10) | ($1.62) | ($0.46) |

The annual cost benefit analysis is somewhat counter-intuitive in terms of the return on investment. The largest returns occur during the slowest film production years.

Because Saskatchewan expenditures have a more significant impact on the economy, there is a corresponding higher tax impact for years in which there is less leakage from the Saskatchewan economy. In years that the industry has been operating at full capacity, the leakage increases because of the need to import some labour and goods and services. Consequently, years in which the industry is running under capacity the relative economic impact of activities is higher.

[26] The production volume for this year has not been fully tabulated.

[27] The total tax impact does not consider the implications of the federal equalization system.

The year 2003-04 had not been fully tabulated at the time the data for this analysis was collected. However, early analysis indicates that there was a negative return to government for the 2003-04 year. There are three reasons why the return in this specific year was negative.

1) The relative Saskatchewan labour component was slightly lower than average, reducing the tax impact.
2) The Saskatchewan operational expenditure as a percentage of total production was well below average, reducing the impact of operational expenditures.
3) The FETC was very high, relative to the production volume.

There are two patterns emerging from this data. The first trend would indicate that the higher the production volume, the lower the relative economic impact. As discussed previously, this is due to the higher levels of leakage during high production years. This is not to say that larger production volumes do not have an increased benefit to the economy, only that the returns on industry growth show diminishing returns because of the limited production capacity of the Saskatchewan industry.

As the industry continues to grow, the production capacity should grow as well. Growth of Saskatchewan's production capacity will lead to Saskatchewan capturing a higher percentage of the economic impacts of production activity in Saskatchewan.

The second trend emerging is that the FETC is growing as a percentage of total production volume as the industry is becoming more skilled at accessing FETC funding. As FETC funding grows as a percentage of the total production expenditure, the relative economic impact of that investment is reduced.

Lastly, in assessing the cost benefit of the FETC to the Government of Saskatchewan it should be noted that the foregoing analysis was applied only to FETC sponsored film productions. As indicated previously there is $8.0 million in annual film production that occurs outside of FETC productions. The tax impact of the non-FETC film production would be an average additional $1.16 million annually.

While it could be argued that a certain level of film production would occur regardless of the FETC program, it is still likely that the non-FETC film production would be diminished if there were no FETC Program in Saskatchewan. Crew capacity would be reduced considerably resulting in greater economic leakage and increased runaway productions.

# Appendix 1

The following table shows all of the economic impact data for the Saskatchewan film industry.

| Table 16 – Net Impacts of FETC Film Production in Saskatchewan ($ Millions) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Fiscal** | **1998-99** | **1999-00** | **2000-01** | **2001-02** | **2002-03** | **2003-04[28]** | **Average** |
| FETC Production Volume | $52.16 | $17.13 | $48.61 | $24.54 | $42.84 | $39.92 | $37.53 |
| Direct Saskatchewan Expenditure | $27.61 | $12.41 | $33.66 | $17.29 | $27.48 | $22.56 | $23.50 |
| Labour Expenditure | $24.28 | $8.45 | $29.88 | $15.06 | $25.44 | $21.55 | $20.78 |
| Saskatchewan Labour Expenditure | $11.95 | $6.74 | $15.19 | $9.90 | $13.56 | $12.46 | $11.63 |
| Direct Employment | 341 | 193 | 434 | 283 | 387 | 356 | 332 |
| Multiplier | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 |
| Total Impact of Employment Expenditures | $23.40 | $13.21 | $29.77 | $19.40 | $26.56 | $24.41 | $22.79 |
| Saskatchewan Employment | 669 | 377 | 851 | 554 | 759 | 697 | 651 |
| Tax Impact | $4.03 | $2.27 | $5.12 | $3.34 | $4.57 | $4.20 | $3.92 |
| Operational Expenditure | $27.88 | $8.68 | $18.73 | $9.48 | $17.40 | $18.37 | $16.76 |
| Saskatchewan Operational Expenditure | $15.66 | $5.67 | $18.47 | $7.39 | $13.92 | $10.10 | $11.87 |
| Multiplier | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 |
| Total Impact of Operational Expenditures | $20.51 | $7.43 | $24.19 | $9.69 | $18.23 | $13.23 | $15.55 |
| Tax Impact | $1.33 | $0.41 | $1.33 | $0.53 | $1.00 | $0.73 | $0.89 |
| Total Economic Impact | $43.91 | $20.64 | $53.96 | $29.09 | $44.79 | $37.64 | $38.34 |
| Total Tax Impact | $5.36 | $2.68 | $6.45 | $3.87 | $5.57 | $4.93 | $4.81 |
| FETC | $5.82 | $2.41 | $6.74 | $3.44 | $6.67 | $6.55 | $5.27 |
| Cost Benefit to Government (negative) | ($0.46) | $0.27 | ($0.29) | $0.43 | ($1.10) | ($1.62) | ($0.46) |

[28] The production volume for this year has not been fully tabulated.

# Appendix 2

The following table shows the economic impact for all film production in Saskatchewan. This table includes expenditures through both FETC funded productions as well as productions as estimated expenditures for productions not receiving FETC funding.

**Table 17 – Total Impacts of Film Production in Saskatchewan ($ Millions)**

| Fiscal | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04[29] | Average |
|---|---|---|---|---|---|---|---|
| FETC Production Volume | $52.16 | $17.13 | $48.61 | $24.54 | $42.84 | $39.92 | $37.53 |
| Non-FETC Production Volume | $8.00 | $8.00 | $8.00 | $8.00 | $8.00 | $8.00 | $8.00 |
| Total Production Volume | $60.16 | $25.13 | $56.61 | $32.54 | $50.84 | $47.92 | $45.53 |
| Labour Expenditure | $28.00 | $12.39 | $34.80 | $19.97 | $30.19 | $25.87 | $25.20 |
| Saskatchewan Labour Expenditure | $13.78 | $9.89 | $17.69 | $13.13 | $16.09 | $14.96 | $14.26 |
| Direct Employment | 394 | 283 | 505 | 375 | 460 | 427 | 407 |
| Multiplier | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 |
| Total Impact of Employment Expenditures | $26.99 | $19.38 | $34.66 | $25.73 | $31.52 | $29.30 | $27.94 |
| Saskatchewan Employment | 771 | 554 | 990 | 735 | 901 | 837 | 798 |
| Labour Tax Impact | $4.65 | $3.34 | $5.97 | $4.43 | $5.43 | $5.05 | $4.81 |
| Operational Expenditure | $32.16 | $12.74 | $21.81 | $12.57 | $20.65 | $22.05 | $20.33 |
| Saskatchewan Operational Expenditure | $18.06 | $8.32 | $21.51 | $9.90 | $16.52 | $12.12 | $14.39 |
| Multiplier | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 | 1.31 |
| Total Impact of Operational Expenditures | $23.66 | $10.91 | $28.18 | $12.97 | $21.64 | $15.88 | $18.85 |
| Operational Tax Impact | $1.54 | $0.60 | $1.55 | $0.71 | $1.19 | $0.87 | $1.08 |
| Total Economic Impact | $50.65 | $30.29 | $62.84 | $39.35 | $53.16 | $45.18 | $46.91 |
| Total Tax Impact | $6.19 | $3.94 | $7.52 | $5.14 | $6.62 | $5.92 | $5.89 |
| FETC | $5.82 | $2.41 | $6.74 | $3.44 | $6.67 | $6.55 | $5.27 |
| Cost Benefit to Government (negative) | $0.37 | $1.53 | $0.78 | $1.70 | ($0.05) | ($0.63) | $0.62 |

[29] The production volume for this year has not been fully tabulated.